Date: Wednesday, 10/09/2008 3:46:04 PM
User: Julie Lecocq

# Process Sheet

| | | | |
|---|---|---|---|
| **Customer** | : CU-DAR001 Dart Helicopters Services | **Drawing Name** | : HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B |
| **Job Number** | : 41952A | | |
| **Estimate Number** | : 10163 | | |
| **P.O. Number** | : | **Part Number** | : D206642241 |
| **This Issue** | : 10/09/2008 **S.O. No.** : | **Drawing Number** | : D2650 REV E |
| **Prsht Rev.** | : NC | **Project Number** | : N/A |
| **First Issue** | : / / **Type** : SKIDTUBES | **Drawing Revision** | : E |
| **Previous Run** | : 41951A | **Material** | : |
| **Written By** | : | **Due Date** | : 15/10/2008 **Qty:** 1 **Um:** Each |
| **Checked & Approved By** | : JLD 08.9.11 | | |
| **Comment** | : Est Rev:M 04.12.02 Revised procedural steps KJ/JLM | | |

**Additional Product**

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 1.0 | DC | DOCUMENT CONTROL |

**Comment:** DOCUMENT CONTROL
Photocopy bluefile & type labels per PPP D206-642-241 CHG003 N/A [signature]

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 2.0 | D2620 | Skidtube, 206 Skidtube |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 1 | D2620 | Bent Tube 3" OD | 41820 |

ET 08-09-12

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 3.0 | D32861 | Doubler |

**Comment:** Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 2 | D3286-1 | Doubler | 41978 |

SL 8-9-21

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 4.0 | D2647 | Cap |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 1 | D2647 | Fwd Cap | B35475 |

BF 08-09-15

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 5.0 | SKIDTUBES 1 | SKIDTUBESS RESOURCE 1 |

**Comment:** LANDING GEAR RESOURCE 1

1-Deburr Fwd edge of tube

ET 08-09-12



Form: rprocess

Dart Aerospace Ltd

| W/O: | WORK ORDER CHANGES | | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** ______________ **PAR #:** _______ **Fault Category:** ______________ **NCR:** Yes No **DQA:** _____ **Date:** _________

**Resolution:** ______________ **Disposition:** ______________ **QA: N/C Closed:** __________ **Date:** _________

| NCR: | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

**Date:** Wednesday, 10/09/2008 3:46:04 PM
**User:** Julie Lecocq

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services
**Drawing Name:** HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

**Job Number:** 41952A
**Part Number:** D206642241

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|

2- Remove ridge on inside of Fwd edge of tube as per Dwg D2650 RT 08-09-12

3-Weld Fwd Cap as per Dwg D2650. Use aluminum rod. Grind D2647 to fit as required.
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| A/R | | Aluminum Rod | m107877/m108708 BE 08-09-15 |

4-Grind weld flush to cap on top surface only. BE 08-09-15

5-Cut Aft end as per dwg 2650 from front of tube and Deburr

6-Remove inner indexing ridge on Aft end of skidtube as per Dwg D2650 ) M 8-9-19

7-Open holes for Aft end cap as per Dwg D2650 with #30 Drill Bit using DT8025.

8-Drill pilot holes using Dt 8167.

9-Locate DT8732 from inner Aft saddle hole & 3rd crossbolt hole. Insert D3286-1 doubler using DT8732 & D206-642-241-T1, then locating doubler off of 3/16" holes, cleco DT8732 & doubler leaving DT8732 for added support.

10- Drill D3286-1 doubler rivet holes in tube using # 40 drill, spot drilling doubler at the same time.

11-Working from the center out, drill # 30 holes into D3286-1 doubler. Cleco each hole as it is being drilled. Verify angle of holes to accommodate rivet heads.

SL 8-9-21

12-Remove 3/16" cleco's only and open GHW holes to Ø0.500" as per Dwg D2650

13-Remove D3286-1 doubers, identify orientation, deburr, then attach them to the workorder

14-Remove indexing edge using DT8741 as per Dwg D2650

15-C'sink GHW rivet holes as per Dwg D2650

| 6.0 | QC6 | DIMENSIONAL CHECK |
|---|---|---|

**Comment:** DIMENSIONAL CHECK 08/09/22



Form: rprocess

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** ____________________ **PAR #:** _______ **Fault Category:** ____________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

**Resolution:** ____________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Corrective Action Section B | | | | | |
| DATE | STEP | Description of NC Section A | Initial Chief Eng | Action Description Chief Eng | Sign & Date | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Date: Wednesday, 10/09/2008 3:46:04 PM
User: Julie Lecocq

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services
**Drawing Name:** HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

**Job Number:** 41952A
**Part Number:** D206642241

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 7.0 | SKIDTUBES 1 | SKIDTUBESS RESOURCE 1 |

**Comment:** LANDING GEAR RESOURCE 1

1-Open crossbolt holes to Ø0.3125" as per Dwg D2650

2-Drill pilot holes using DT8028-3, then open to Ø0.297" as per Dwg D2650. Open Aft cap hole #6.

3-Deburr tube and blow out chips from inside the tube

M 8-9-22

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 8.0 | HAND FINISHING1 | HAND FINISHING RESOURCE #1 |

**Comment:** HAND FINISHING RESOURCE #1
Chemical Conversion Coat as per QSI 005 4.1

Jb 8-9-22

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 9.0 | QC3 | INSPECT POWDER COAT/CHEMICAL CONVERSION |

**Comment:** INSPECT POWDER COAT/CHEMICAL CONVERSION

D M 8-9-22

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 10.0 | SKIDTUBES 1 | SKIDTUBESS RESOURCE 1 |

**Comment:** LANDING GEAR RESOURCE 1

1-Open holes to finished size as per Dwg D2650, D2650-3 Drilling Detail (without cutting fluid)

2-C'sink crossbolt spacer holes as per Dwg D2650(without cutting fluid)

3-Deburr and blow out all chips from inside the tube

M 8-9-22

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 11.0 | QC6 | DIMENSIONAL CHECK |

**Comment:** DIMENSIONAL CHECK

00/04/08

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 12.0 | CR3212404 | Cherry Rivet |

**Comment:** Qty.: 52.0000 Each(s)/Unit Total : 52.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 52 | CR3212-4-04 | Rivet | M103698 |

(53) M 8-9-23



Form: rprocess

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** ______________________ **PAR #:** ________ **Fault Category:** ___________________ **NCR:** Yes No **DQA:** _____ **Date:** __________

**Resolution:** ______________________ **Disposition:** ______________________ **QA: N/C Closed:** ___________ **Date:** __________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Corrective Action Section B | | | | | |
| DATE | STEP | Description of NC Section A | Initial Chief Eng | Action Description Chief Eng | Sign & Date | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services

**Drawing Name:** HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

**Job Number:** 41952A

**Part Number:** D206642241

Job Number:

| **Seq. #:** | **Machine Or Operation:** | **Description :** |
|---|---|---|
| 13.0 | D26543 | Web |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Pick:
Qty Part Number Description Batch
1 D2654-3 Web B-41973

AWM 8-9-23 (1K)

| 14.0 | SKIDTUBES 1 | SKIDTUBESS RESOURCE 1 |
|---|---|---|

**Comment:** LANDING GEAR RESOURCE 1

1-Locate, install and rivet doublers as per Dwg D2650. Micro-shave rivets as required M 7-9-23

2-Bond D2654-3 web in place as per QSI 015. Ensure holes line up.Allow 12 Hrs. cure time before cutting
Start Date: 8-9-23 Time: 11:05
Finish Date: 8/9/24 Time: 8:30AM

AWM 8-9-23

Pick:
Qty Part Number Description Batch
A/R Sikaflex-291 M109338
Sikaflex expire date: 8-11-01

| 15.0 | QC5 | INSPECT WORK TO CURRENT STEP |
|---|---|---|

**Comment:** INSPECT WORK TO CURRENT STEP S 08/09/84 (KD)

| 16.0 | D2649 | Cross Bolt Spacer |
|---|---|---|

**Comment:** Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)
Pick:
Qty Part Number Description Batch
18 D2649 Crossbolt spacer B40830 (1PC) B41594 (17PC) BE 08/09/24

| 17.0 | D32863 | Spacer |
|---|---|---|

**Comment:** Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)
Pick:
Qty Part Number Description Batch
2 D3286-3 Spacer B41900 BE 08/09/26

Dart Aerospace Ltd

| W/O: | WORK ORDER CHANGES | | | | | | |
|---|---|---|---|---|---|---|---|
| **DATE** | **STEP** | **PROCEDURE CHANGE** | **By** | **Date** | **Qty** | **Approval** Chief Eng / Prod Mgr | **Approval** QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

**Resolution:** ____________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

| NCR: | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **DATE** | **STEP** | **Description of NC** Section A | **Corrective Action** Section B | | | **Verification** Section C | **Approval** Chief Eng | **Approval** QC Inspector |
| | | | **Initial** Chief Eng | **Action Description** Chief Eng | **Sign & Date** | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

**Date:** Wednesday, 10/09/2008 3:46:04 PM
**User:** Julie Lecocq

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services
**Drawing Name:** HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

**Job Number:** 41952A
**Part Number:** D206642241

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 18.0 | SKIDTUBES 1 | SKIDTUBESS RESOURCE 1 |

**Comment:** LANDING GEAR RESOURCE 1

1-Insert D2649 crossbolt spacers. Weld as per QSI 004 and Dwg D2650. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod.
Pick:
Qty Part Number Description Batch
A/R Aluminum Rod M107877 BE 08/09/24

2-Grind welds flush as per Dwg D2650.

3-Using DT8733, insert (2) D3286-3 spacers as per QSI 004 and Dwg D2650. Remember to back drill each hole to Ø0.402" before welding other side. Use SS rod as required.
A/R SS Rod NONE BE 08/09/26

4-Counterbore 5/16" x 0.750" deep except 7th hole from Aft end as per Dwg D2650. Deburr JB 8-9-26

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 19.0 | CCR264SS33 | Cherry Rivet |

**Comment:** Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)
Pick:
Qty Part Number Description Batch
2 CCR264SS3-3 Rivets M109405 (2) M 7-9-29

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 20.0 | M7885343 | Rivet |

**Comment:** Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)
Pick:
Qty Part Number Description Batch
2 M7885/3-4-3 Rivets M10617 (2) M 7-9-29

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 21.0 | D2680041 | Nut Plate |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Pick:
Qty Part Number Description Batch
1 D2680-041 Nut Plate B34599 (1) M 7-9-29

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: ____________________ PAR #: _______ Fault Category: __________________ NCR: Yes No DQA: _____ Date: _________

Resolution: ____________________ Disposition: ____________________ QA: N/C Closed: __________ Date: _________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

Date: Wednesday, 10/09/2008 3:46:04 PM
User: Julie Lecocq

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services
**Drawing Name:** HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

**Job Number:** 41952A
**Part Number:** D206642241

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 22.0 | HAND FINISHING1 | HAND FINISHING RESOURCE #1 |

**Comment:** HAND FINISHING RESOURCE #1

Install D2680-041 Nut Plate as per Dwg D2650 D 147-9-29

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 23.0 | QC9 | VISUAL WELDING INSPECTION |

CP 08.09.29

**Comment:** VISUAL WELDING INSPECTION 08.09.29

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 24.0 | QC5 | INSPECT WORK TO CURRENT STEP |

**Comment:** INSPECT WORK TO CURRENT STEP 08/09/29

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 25.0 | HAND FINISHING1 | HAND FINISHING RESOURCE #1 |

(1X)

**Comment:** HAND FINISHING RESOURCE #1
Pressure wash as per QSI 005 08/09/29

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 26.0 | POWDER COATING | POWDER COATING |

M109152 (1X)

**Comment:** POWDER COATING
Powder Coat White Gloss (Ref. 4.3.5.1) as per QSI 005 4.3. Make sure Nut Plate Thread is protected using paint screw, and mask GHW studs.

START TIME: 7:40
OVEN TEMPERATURE: 320 °F
FINISH TIME: 8:10 08/09/30

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 27.0 | QC3 | INSPECT POWDER COAT/CHEMICAL CONVERSION |

**Comment:** INSPECT POWDER COAT/CHEMICAL CONVERSION 08.09.30 (X1)

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 28.0 | D26483 | Wearpad |

**Comment:** Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 4 | D2648-3 | Wearpad | B41897 |

08.09.30 (X1)



Form: rprocess

Dart Aerospace Ltd

| W/O: | WORK ORDER CHANGES | | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

**Resolution:** ____________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

| NCR: | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC<br>Section A | Corrective Action Section B | | | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
| | | | Initial<br>Chief Eng | Action Description<br>Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

**Date:** Wednesday, 10/09/2008 3:46:04 PM
**User:** Julie Lecocq

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services
**Drawing Name:** HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

**Job Number:** 41952A
**Part Number:** D206642241

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 29.0 | D265613 | Wearplate |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 1 | D2656-13 | Wearshoe | B38747 |

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 30.0 | D265621 | Wearplate |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 1 | D2656-21 | Wearshoe | B38748 |

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 31.0 | D265633 | Wearplate |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 1 | D2656-33 | Wearshoe | B21148 |

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 32.0 | D34291 | Wearpad |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 1 | D3429-1 | Wearpad | B41842 |

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 33.0 | ALS41032130 | Insert |

**Comment:** Qty.: 44.0000 Each(s)/Unit Total : 44.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 44 | ALS4-1032-130 | Inserts | M105819 |

or (see QSI 017)

08-06-30



Form: rprocess

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: ____________________ PAR #: _______ Fault Category: __________________ NCR: Yes No DQA: _____ Date: _________

Resolution: ____________________ Disposition: ____________________ QA: N/C Closed: __________ Date: __________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

Date: Wednesday, 10/09/2008 3:46:04 PM
User: Julie Lecocq

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services
**Drawing Name:** HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

**Job Number:** 41952A
**Part Number:** D206642241

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 34.0 | AN960JD10L | Washer |

**Comment:** Qty.: 46.0000 Each(s)/Unit Total : 46.0000 Each(s)
Pick:
Qty Part Number Description Batch
46 AN960JD10L Washer M105793 JH

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 35.0 | MS27039108 | Screw |

**Comment:** Qty.: 46.0000 Each(s)/Unit Total : 46.0000 Each(s)
Pick:
Qty Part Number Description Batch
46 MS27039-1-08 Screw M109061 JH

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 36.0 | D26511 | Plug |

**Comment:** Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)
Pick:
Qty Part Number Description Batch
18 D2651-1 Plugs B41636 JH

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 37.0 | D26513 | O-Ring |

**Comment:** Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)
Pick:
Qty Part Number Description Batch
18 D2651-3 O-Rings B41124 JH

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 38.0 | MS27039406 | Screw |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Pick:
Qty Part Number Description Batch
1 MS27039-4-06 Screw M107862 JH

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 39.0 | AN960JD416 | Washer |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Pick:
Qty Part Number Description Batch
1 AN960JD416 Washer M108161 JH 08.09.30 (1)

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

**Resolution:** ____________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

Date: Wednesday, 10/09/2008 3:46:04 PM
User: Julie Lecocq

# Process Sheet

**Customer:** CU-DAR091 Dart Helicopters Services
**Drawing Name:** HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

**Job Number:** 41952A
**Part Number:** D206642241

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 40.0 | HAND FINISHING1 | HAND FINISHING RESOURCE #1 |

**Comment:** HAND FINISHING RESOURCE #1]

1- Install inserts & wearpads as per dwg D2922. Use a drop of Sikaflex inside insert holes before installing wearpad/wearplate.
A/R Sikaflex-291 M108801
Sikaflex expire date: 08/10

2-Install D2651-3 O-Rings on D2651-1 plugs with Petroleum Jelly and install plugs as per Dwg D2650 (D2650-3 detail). Clean excess adhesive.

3-Install MS27039-4-06 Screw as per DEO 9153. JP 08-09-30

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 41.0 | D2646 | Aft Cap |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Pick:
Qty Part Number Description Batch
1 D2646 Aft Cap B41435

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 42.0 | HAND FINISHING1 | HAND FINISHING RESOURCE #1 |

**Comment:** HAND FINISHING RESOURCE #1

1-Install D2646 Aft Cap and seal with Sikaflex. Clean excess adhesive -> JP 08-09-30
A/R Sikaflex-291 M108801
Sikaflex expire date: 08/10

2-Wing Walk as per Dwg D2650-3 and QSI 005 4.4
Batch: M107496 — FL 08/10/01

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 43.0 | QC3 | INSPECT POWDER COAT/CHEMICAL CONVERSION |

08 10 01

**Comment:** INSPECT POWDER COAT/CHEMICAL CONVERSION

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 44.0 | QC5 | INSPECT WORK TO CURRENT STEP |

**Comment:** INSPECT WORK TO CURRENT STEP 08 10 01


Form: rprocess

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

**Resolution:** ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

**Date:** Wednesday, 10/09/2008 3:46:05 PM
**User:** Julie Lecocq

# Process Sheet

**Customer:** CU-DAR091 Dart Helicopters Services

**Drawing Name:** HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

**Job Number:** 41952A

**Part Number:** D206642241

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
| --- | --- | --- |
| 45.0 | PACKAGING 1 | PACKAGING RESOURCE #1 |

**Comment:** PACKAGING RESOURCE #1
Identify and pack for shipping as per PPP D206664241 IF APPLICABLE
Location:___________
PPP Rev:___________ PPP41952 08/10/06 (X1)

| Seq. #: | Machine Or Operation: | Description : |
| --- | --- | --- |
| 46.0 | QC21 | FINAL INSPECTION/W/O RELEASE |

08/10/08

**Comment:** FINAL INSPECTION/W/O RELEASE

Job Completion

MF 08-10-07



Form: rprocess

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

**Resolution:** ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

DART

| DESIGN | DRAWN BY | DART AEROSPACE USA, INC. PORT HADLOCK, WA |
|---|---|---|
| CHECKED | APPROVED | DRAWING NO. D2650 — REV. E — SHEET 1 OF 5 |
| DATE 06.03.30 | | TITLE 206/407 SKIDTUBE ASSEMBLIES — SCALE NTS |

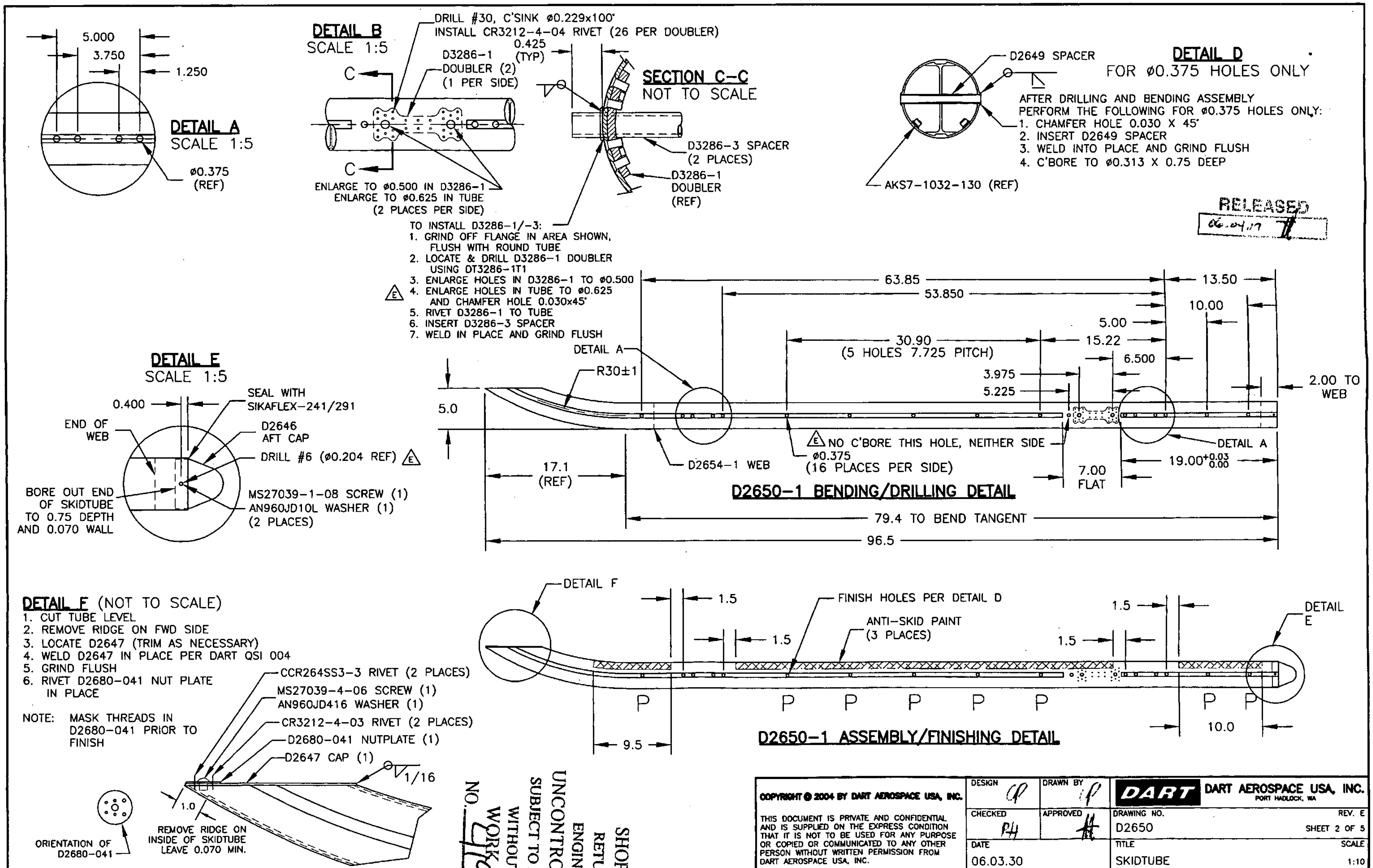
| | | |
|---|---|---|
| A | 97.03.25 | NEW ISSUE |
| B | 97.06.26 | AS MANUFACTURED CHANGES |
| C | 97.10.29 | CHANGE HOLE PATTERN AND FRONT END |
| D | 04.05.17 | REDRAW; INCORP. DE09136/9153/9163 MOD GROUND HNDLNG ON D2650-1/-3 |
| E | 06.03.30 | RMV C'BORE, CHG DRILL, ADD CHAMFER |

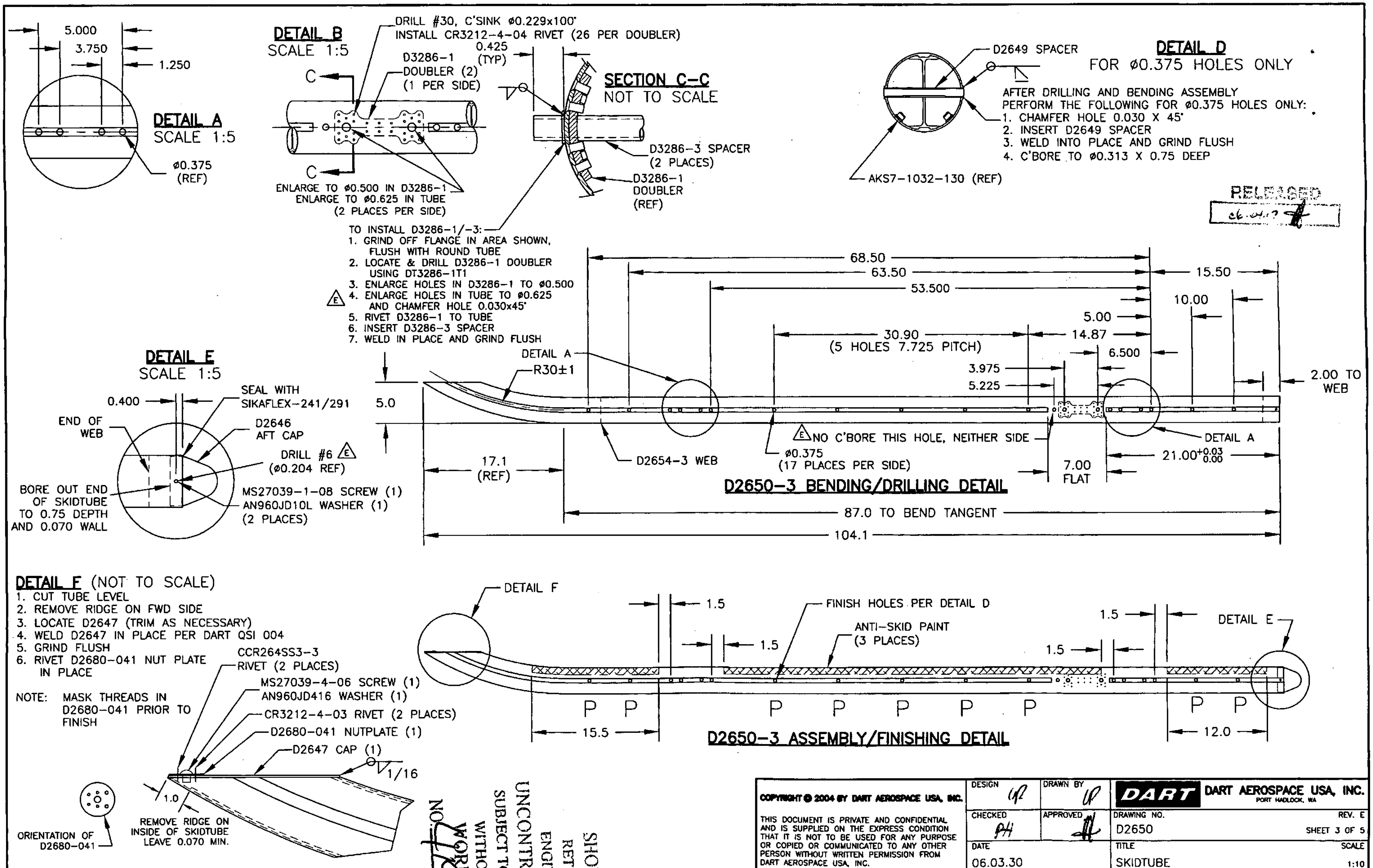
RELEASED 06 04 17

| Qty -1 | Qty -3 | Qty -5 | Qty -7 | Part Number | Description |
|---|---|---|---|---|---|
| X | | | | D2650-1 | SKIDTUBE ASSEMBLY |
| | X | | | D2650-3 | SKIDTUBE ASSEMBLY |
| | | X | | D2650-5 | SKIDTUBE ASSEMBLY |
| | | | X | D2650-7 | SKIDTUBE ASSEMBLY |
| | | | | | |
| 1 | 1 | 1 | 1 | D2600-1-160 | EXTRUSION |
| 1 | | | | D2654-1 | WEB |
| | 1 | | | D2654-3 | WEB |
| | | 1 | | D2654-5 | WEB |
| | | | 1 | D2654-7 | WEB |
| 1 | 1 | 1 | 1 | D2646 | AFT CAP |
| 1 | 1 | 1 | 1 | D2647 | CAP |
| 16 | 17 | 19 | 23 | D2649 | CROSS BOLT SPACER |
| 16 | 18 | 14 | 22 | D2651-1 | PLUG |
| 16 | 18 | 14 | 22 | D2651-3 | O-RING |
| 1 | 1 | 1 | 1 | D2680-041 | NUT PLATE |
| 2 | 2 | | | D3286-1 | DOUBLER |
| 2 | 2 | | | D3286-3 | STUD |
| | | | | | |
| 42 | 44 | 54 | 60 | ALS7-1032-130 | INSERT (or AKS4-1032-130, ALS4-1032-130, ALS7-1032-130) |
| 2 | 2 | 2 | 2 | AN960JD10L | WASHER |
| 2 | 2 | 2 | 2 | CCR264SS3-3 | RIVET |
| 2 | 2 | 2 | 2 | CR3212-4-03 | RIVET |
| 2 | 2 | 2 | 2 | MS27039-1-08 | SCREW |
| 1 | 1 | 1 | 1 | MS27039-4-06 | SCREW |
| 1 | 1 | 1 | 1 | AN960JD416 | WASHER |
| 52 | 52 | | | CR3212-4-04 | RIVET |

**NOTES**

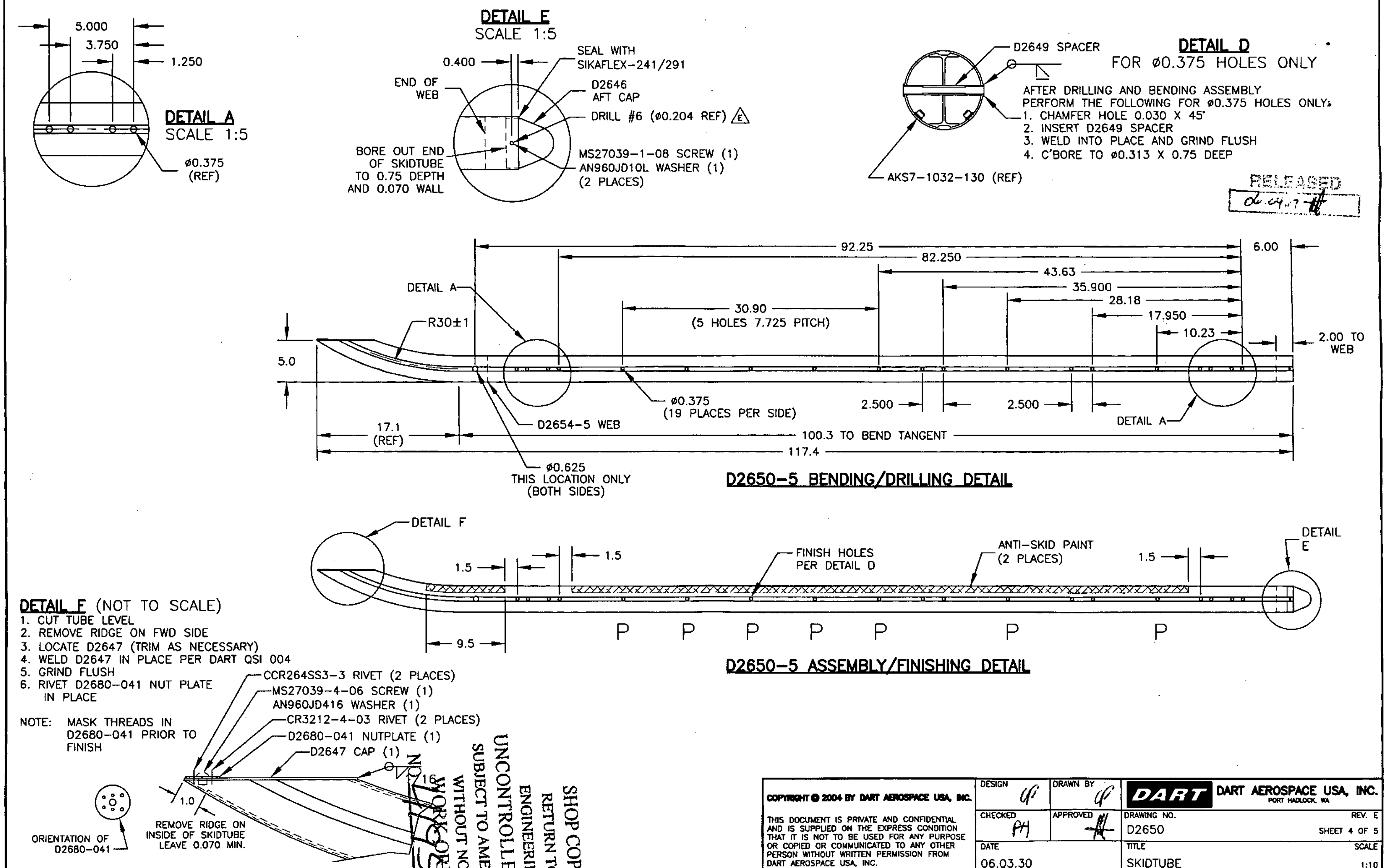
1) WELD PER DART QSI 004
2) DAMAGE TOLERANCE ON FWD BEND:
   THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
3) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
4) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED '**P**' (BOTH SIDES OF TUBE)
5) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
   -POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
   -BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
6) DRILL ∅0.297 FOR ALS7-1032-130 INSERTS USING TEMPLATE DT8056-1 ON –1 TUBE, DT8056-3 ON –3 TUBE, DT8056-5 ON –5 TUBE, AND DT8056-7 ON –7 TUBE. INSTALL INSERTS AFTER FINISH.
7) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED


DETAIL A
SCALE 1:5
5.000
3.750
1.250
ø0.375 (REF)
DETAIL B
SCALE 1:5
DRILL #30, C'SINK ø0.229x100°
INSTALL CR3212-4-04 RIVET (26 PER DOUBLER)
0.425 (TYP)
D3286-1 DOUBLER (2) (1 PER SIDE)
C
ENLARGE TO ø0.500 IN D3286-1
ENLARGE TO ø0.625 IN TUBE
(2 PLACES PER SIDE)
SECTION C-C
NOT TO SCALE
D3286-3 SPACER (2 PLACES)
D3286-1 DOUBLER (REF)
TO INSTALL D3286-1/-3:
1. GRIND OFF FLANGE IN AREA SHOWN, FLUSH WITH ROUND TUBE
2. LOCATE & DRILL D3286-1 DOUBLER USING DT3286-1T1
3. ENLARGE HOLES IN D3286-1 TO ø0.500
4. ENLARGE HOLES IN TUBE TO ø0.625 AND CHAMFER HOLE 0.030x45°
5. RIVET D3286-1 TO TUBE
6. INSERT D3286-3 SPACER
7. WELD IN PLACE AND GRIND FLUSH
DETAIL D
FOR ø0.375 HOLES ONLY
D2649 SPACER
AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR ø0.375 HOLES ONLY:
1. CHAMFER HOLE 0.030 X 45°
2. INSERT D2649 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE TO ø0.313 X 0.75 DEEP
AKS7-1032-130 (REF)
RELEASED
06.04.17
DETAIL E
SCALE 1:5
0.400
SEAL WITH SIKAFLEX-241/291
END OF WEB
D2646 AFT CAP
DRILL #6 (ø0.204 REF)
BORE OUT END OF SKIDTUBE TO 0.75 DEPTH AND 0.070 WALL
MS27039-1-08 SCREW (1)
AN960JD10L WASHER (1)
(2 PLACES)
DETAIL A
R30±1
5.0
63.85
53.850
13.50
10.00
5.00
30.90 (5 HOLES 7.725 PITCH)
15.22
6.500
3.975
5.225
2.00 TO WEB
NO C'BORE THIS HOLE, NEITHER SIDE
ø0.375 (16 PLACES PER SIDE)
D2654-1 WEB
17.1 (REF)
7.00 FLAT
19.00 +0.03 / 0.00
D2650-1 BENDING/DRILLING DETAIL
79.4 TO BEND TANGENT
96.5
DETAIL F (NOT TO SCALE)
1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D2647 (TRIM AS NECESSARY)
4. WELD D2647 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D2680-041 NUT PLATE IN PLACE
NOTE: MASK THREADS IN D2680-041 PRIOR TO FINISH
CCR264SS3-3 RIVET (2 PLACES)
MS27039-4-06 SCREW (1)
AN960JD416 WASHER (1)
CR3212-4-03 RIVET (2 PLACES)
D2680-041 NUTPLATE (1)
D2647 CAP (1)
1/16
1.0
ORIENTATION OF D2680-041
REMOVE RIDGE ON INSIDE OF SKIDTUBE LEAVE 0.070 MIN.
DETAIL F
1.5
FINISH HOLES PER DETAIL D
ANTI-SKID PAINT (3 PLACES)
DETAIL E
P P P P P P P P
9.5
10.0
D2650-1 ASSEMBLY/FINISHING DETAIL
COPYRIGHT © 2004 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.
DESIGN
DRAWN BY
CHECKED
APPROVED
DATE 06.03.30
DART
DART AEROSPACE USA, INC.
PORT HADLOCK, WA
DRAWING NO. D2650
REV. E
SHEET 2 OF 5
TITLE SKIDTUBE
SCALE 1:10





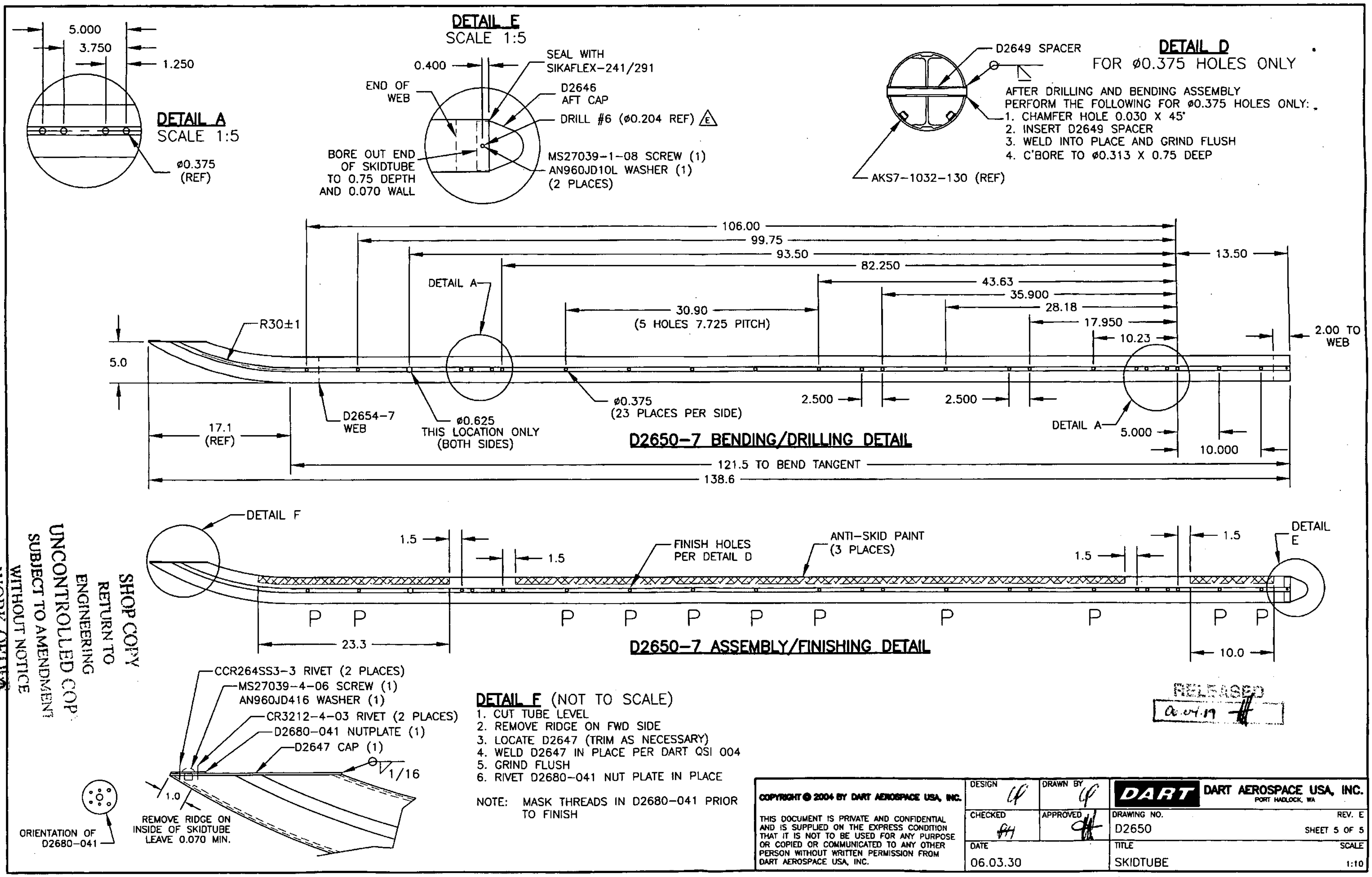

| DESIGN | DRAWN BY | DART AEROSPACE USA, INC. PORT HADLOCK, WA |
|---|---|---|
| CHECKED | APPROVED | DRAWING NO. D2650 — REV. E — SHEET 3 OF 5 |
| DATE 06.03.30 | | TITLE SKIDTUBE — SCALE 1:10 |




RELEASED

SHOP COPY RETURN TO ENGINEERING
UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE
WORK ORDER

|  | DESIGN | DRAWN BY | DART AEROSPACE USA, INC. PORT HADLOCK, WA | |
|---|---|---|---|---|
|  | CHECKED | APPROVED | DRAWING NO. D2650 | REV. E SHEET 4 OF 5 |
| | DATE 06.03.30 | | TITLE SKIDTUBE | SCALE 1:10 |



DETAIL A
SCALE 1:5
5.000
3.750
1.250
ø0.375 (REF)
DETAIL E
SCALE 1:5
0.400
SEAL WITH SIKAFLEX-241/291
END OF WEB
D2646 AFT CAP
DRILL #6 (ø0.204 REF)
BORE OUT END OF SKIDTUBE TO 0.75 DEPTH AND 0.070 WALL
MS27039-1-08 SCREW (1)
AN960JD10L WASHER (1)
(2 PLACES)
D2649 SPACER
DETAIL D
FOR ø0.375 HOLES ONLY
AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR ø0.375 HOLES ONLY:
1. CHAMFER HOLE 0.030 X 45°
2. INSERT D2649 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE TO ø0.313 X 0.75 DEEP
AKS7-1032-130 (REF)
106.00
99.75
93.50
82.250
43.63
35.900
28.18
17.950
10.23
13.50
2.00 TO WEB
DETAIL A
R30±1
30.90
(5 HOLES 7.725 PITCH)
5.0
ø0.375
(23 PLACES PER SIDE)
2.500
2.500
D2654-7 WEB
ø0.625
THIS LOCATION ONLY
(BOTH SIDES)
DETAIL A
5.000
10.000
17.1 (REF)
D2650-7 BENDING/DRILLING DETAIL
121.5 TO BEND TANGENT
138.6
DETAIL F
1.5
1.5
FINISH HOLES PER DETAIL D
ANTI-SKID PAINT (3 PLACES)
1.5
1.5
DETAIL E
P P P P P P P P P P P
23.3
D2650-7 ASSEMBLY/FINISHING DETAIL
10.0
SHOP COPY
RETURN TO ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT WITHOUT NOTICE
WORK ORDER NO.
CCR264SS3-3 RIVET (2 PLACES)
MS27039-4-06 SCREW (1)
AN960JD416 WASHER (1)
CR3212-4-03 RIVET (2 PLACES)
D2680-041 NUTPLATE (1)
D2647 CAP (1)
1/16
1.0
REMOVE RIDGE ON INSIDE OF SKIDTUBE LEAVE 0.070 MIN.
ORIENTATION OF D2680-041
DETAIL F (NOT TO SCALE)
1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D2647 (TRIM AS NECESSARY)
4. WELD D2647 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D2680-041 NUT PLATE IN PLACE
NOTE: MASK THREADS IN D2680-041 PRIOR TO FINISH
RELEASED
COPYRIGHT © 2004 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.
DESIGN
DRAWN BY
CHECKED
APPROVED
DATE
06.03.30
DART
DART AEROSPACE USA, INC.
PORT HADLOCK, WA
DRAWING NO.
D2650
REV. E
SHEET 5 OF 5
TITLE
SKIDTUBE
SCALE
1:10

206

NO. 06

# AWS D17.1.2001
## QUALIFICATION TEST RECORD

**Name:** Barclay Elliott
**Job number:** 41952 A
**Part number:** D206 642241
**Description:** 206 skid
**Welding Process:** Tig[✓] Mig[ ]
**Base materiel:** Aluminium
**Current:** AC[✓] DC[ ]

## TEST REQUIREMENTS AND RESULTS

| | | |
|---|---|---|
| **Visual:** | pass[✓] | fail[ ] |
| **Penetration:** | pass[✓] | fail[ ] |

**UNACCEPTABLE**

| | | |
|---|---|---|
| **Cracks:** | pass[✓] | fail[ ] |
| **Undercut:** | pass[✓] | fail[ ] |
| **Pin holes:** | pass[✓] | fail[ ] |
| **Overlap (cold lap)** | pass[✓] | fail[ ] |
| **Porosity (surface):** | pass[✓] | fail[ ] |
| **Coloration:** | pass[✓] | fail[ ] |

**Qualifier** Pat. Duval **Date of Test Coupon** 08-09-26

**Welder** Barclay Elliott **Date of Test Coupon** 08-09-26

The above named individual is qualified in accordance with AWS D17.1.2001 to weld